

# COASTAL CONSERVANCY

Staff Recommendation

March 2, 2006

## **FIVE COUNTIES FISH PASSAGE IMPROVEMENT PROGRAM: IMPLEMENTATION**

File No. 05-109

Project Manager: Michael Bowen

**RECOMMENDED ACTION:** Authorization to disburse up to \$700,000 to the County of Trinity ("County") for fish passage improvement projects identified in the Five Counties Salmonid Conservation Planning Program and located within the Five Counties Salmonid Conservation Planning Area.

**LOCATION:** Coastal watersheds within the Five Counties Salmonid Conservation Program ("FCSCP") service area (Exhibit 1).

**PROGRAM CATEGORY:** Integrated Coastal and Marine Resources Protection, and Resource Enhancement.

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### **EXHIBITS**

Exhibit 1: Project Location

Exhibit 2: Letters of Support

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### **RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following Resolution pursuant to Sections 31251-31270 of the Public Resources Code:

"The State Coastal Conservancy hereby authorizes the disbursement of an amount not to exceed seven hundred thousand dollars (\$700,000) to the County of Trinity for fish passage improvement projects. No Conservancy funds shall be disbursed toward implementation of any proposed project until the Conservancy authorizes the proposed project."

Staff further recommends that the Conservancy adopt the following findings:

"Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed project is consistent with the purposes and criteria set forth in Chapter 5.5 of Division 21, section 31220 of the Public Resources Code regarding watershed enhancement

projects, and with Chapter 6 (sections 31251-31270) regarding the enhancement of coastal resources.

2. The proposed authorization is consistent with the Project Selection Criteria and Guidelines adopted by the Conservancy on January 24, 2001.”

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**PROJECT SUMMARY:**

Staff recommends authorization to disburse up to \$700,000 to the County of Trinity (“County”) for fish passage improvement projects consistent with the prioritization of projects developed by the Five Counties Salmonid Conservation Planning Program. The purpose of this authorization is to improve fish passage in streams where barriers to fish passage have resulted from the inappropriate design and construction of road crossings or other instream structures. Historically, road crossings, culverts, and other structures were inappropriately constructed, inadvertently preventing the upstream passage of anadromous fish, such as salmon, steelhead and coastal cutthroat trout. The proposed fish passage projects would be located throughout Five County Salmonid Conservation Planning Program area watersheds. Specific projects will be selected based on an adopted, prioritized list of projects, and presented to the Conservancy for authorization of implementation funds and adoption of CEQA findings. It is anticipated that at least three projects will be implemented with this authorization, and possibly more depending on the amount of matching funds received by the County.

The County will use the funds to implement specific individual projects that improve fish passage in coastal watersheds. The County will allocate funds with assistance from Conservancy staff. Projects will be evaluated on the basis of several criteria, such as prioritization of individual projects by the Five Counties Program, consistency with the California Coho Recovery Plan, readiness for construction, local funding contribution, and compliance with the California Environmental Quality Act. Specific projects recommended for funding will be brought back to the Conservancy for final approval and authorization.

Like many such structures, culverts at road crossings have prevented fish from ascending streams due to excessive heights between culvert outlets and plunge pools below, and impassably high flow velocities within the culverts themselves. Fish capable of ascending barriers are often too fatigued to spawn. Fish prevented from ascending such culverts typically congregate in discharge pools below the culvert, where they may fall prey to predators or poachers. Moreover, culvert failures often result in road failure, mass failure of slopes, resultant erosion, property damage, and the degradation of waters and salmonid habitat downstream.

Thousands of such barriers to fish passage have been identified, and are cited in the Conservancy’s recently completed report, “Inventory of Barriers to Fish Passage in California’s Coastal Watersheds,” circulated previously to the Conservancy Board, and others.

The opportunity to recover fish populations while improving local infrastructure such as roads and highways and diminishing future maintenance costs has made county governments, CalTrans, and others keen participants in fish passage improvement projects. However, the ability of these entities to implement fish passage improvement projects is hampered by the

ability of local government and agency staff to effectively design, permit and implement promising projects. This grant would expedite the implementation of a block of fish passage improvement projects, thereby expediting the recovery of habitat for anadromous fish and other aquatic species found in coastal watersheds.

**Project History:** In 1997, the Counties of Del Norte, Humboldt, Mendocino, Siskiyou, and Trinity agreed to collaborate in response to the federal listings of salmon as threatened species by forming the Five Counties Salmonid Conservation Program (“FCSCP”). The goal was to seek opportunities to contribute to the long-term recovery of salmon and steelhead in Northern California. The objectives were to: evaluate options for improving county plans, policies, and practices to provide or improve salmonid habitat; identify areas where Counties might be vulnerable to challenges under the ESA; and upgrade training programs and recovery project monitoring and reporting procedures. Initial meetings identified causative factors of salmonid declines and how county infrastructure contributed to that decline, information gaps on limits to salmonid recovery, and priority tasks required to obtain missing information necessary for concerted recovery efforts. A high-priority task included conducting culvert inventories on county roads to evaluate fish passage and prioritize treatments.

The inventories and fish passage evaluations of culverts within the five counties’ road systems were conducted between 1998 and 2000. The objective was to assess passage of juvenile and adult salmonids and develop project scheduling documents to prioritize corrective treatments to provide unimpeded fish passage. The inventories were limited to county-maintained crossings within anadromous stream reaches known to historically and/or currently support runs of coho salmon (*Oncorhynchus kisutch*), chinook salmon (*O. tshawytschia*), and/or steelhead (*O. mykiss irideus*).

Following completion of the final fish passage barrier reports, two of the counties sought financial assistance for project implementation from the Conservancy, and others sought funds from the California Department of Fish and Game. Subsequently, the Conservancy authorized grants to the Counties of Humboldt and Del Norte to help implement 10 fish passage improvement projects. These included: Lindsay Creek, a tributary to Mad River, and considered the best coho salmon and coastal cutthroat trout tributary within the entire Mad River watershed; and North and South Fork Anker Creek, tributaries to the Mad River. All of these projects have enjoyed tremendous success, with documented spawning and rearing of coho, steelhead, and Chinook salmon above the former barriers. Additionally, at the June, 2002 meeting, the Conservancy approved the Digger Creek Barrier Removal Project in Mendocino County, which was originally identified as a high priority in the Mendocino County inventory.

Simultaneously, and in response to an appropriation from the Salmon Habitat Restoration Program, sponsored by Senator Byron Sher (D-Palo Alto), the Conservancy conducted an extensive and first-of-its-kind inventory of existing fish passage barrier data for coastal California streams. That report identifies more than 20,000 potential barriers to fish passage, 65 of which are high priority artificial total barriers to fish passage.

In an effort to expedite the design and permitting of high – priority projects, the Conservancy awarded a design and permitting grant to the County of Trinity to design, permit and prepare for

implementation at least ten fish passage improvement projects on August 14, 2003. The County of Trinity and its partners in Humboldt County have utilized this grant effectively, leveraging the planning grant by securing funds to implement nearly all of the projects, and thereby ensuring the timely implementation of the projects. The Counties recently celebrated the 100<sup>th</sup> mile of historic habitat reopened to spawning and rearing for pacific salmon.

Building upon this success, the Conservancy augmented the County of Trinity's planning grant by \$270,178, thereby increasing the number of design and permitting projects from ten to seventeen. Most of these designs are completed, and the proposed grant would assure the timely selection of appropriate projects for implementation and construction of designed fish passage improvement projects.

**PROJECT FINANCING:**

Coastal Conservancy	\$700,000
Five Counties Salmonid Conservation Program ( <i>Biological and Technical Services</i> )	\$100,000
<b>Total Project Cost</b>	<b>\$800,000</b>

The expected source of Conservancy funds for this project is twofold: \$156,407 will come from the fiscal year 2005-2006 appropriation to the Conservancy from the Safe Neighborhood Parks, Clean Water, Clean Air and Coastal Protection Bond Act of 2000 (Proposition 12), Coastal Salmon Funds. The project is consistent with Proposition 12 in that it will provide measurable improvement to and increases in available habitat for coastal salmon populations.

The remainder, \$543,593, will come from the Conservancy's fiscal year 2002-2003 appropriation from the California Clean Water, Clean Air, Safe Neighborhood Parks and Coastal Protection Act of 2002 (Proposition 40). The proposed project is consistent with this funding source because it will improve hydraulic connectivity and habitat quality in coastal watersheds, in accordance with Division 21 of the Public Resources Code. These bond funds may be used in accordance with Division 21 for the acquisition and development of land and water resources.

The County will provide approximately \$100,000 of in-kind contributions in the form of data collection, technical analyses, project design, and permit material preparation for pre-implementation planning and implementation purposes.

**CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:**

The proposed project is undertaken pursuant to Chapter 5.5 (section 31220) of Division 21 of the Public Resources Code regarding integrated coastal and marine resources protection, as follows:

Under Section 31220(a), in order to improve coastal water quality, the Conservancy may undertake watershed restoration projects that protect fish and wildlife habitat within coastal watersheds and coastal waters. The project will benefit anadromous fish, notably salmon and steelhead, consistent with this criterion.

Consistent with Section 31220(a), the Conservancy has consulted with the State Water Resources Control Board in the development of the grant to ensure consistency with legal provisions adopted to restore and protect the water quality and environment of coastal waters, estuaries, bays, and near shore waters.

Under Section 31220(b), the Conservancy may undertake a project or award a grant to a project if the project achieves at least one of the listed criteria.

Consistent with Section 31220(b)(2), the projects will help protect and restore fish and wildlife habitat within coastal watersheds by removing barriers to fish passage and increasing available spawning and rearing habitat for coastal salmon and steelhead populations.

Consistent with Section 31220(b)(3), the projects will reduce the threat of extirpation or extinction facing substantially reduced populations of coastal salmon and steelhead populations by increasing available high quality habitat in coastal watersheds.

Consistent with Section 31220(b)(4), the projects will help reestablish natural hydraulic and geomorphic connectivity at road-stream crossings, thereby decreasing the likelihood of unnatural erosion or sedimentation caused by blockages or culvert failures.

Consistent with Section 31220(b)(5), the projects are all entered into the State administered Passage Assessment Database (“PAD”), and California Habitat Restoration Project Database (“CHRPD”), thereby providing for the monitoring and mapping of coastal salmon and steelhead habitat availability, a necessary precursor to the accurate depiction of population levels. Both databases are housed at the Department of Fish and Game, and the Conservancy coordinates closely with DFG in the administration of this information management system via the development and management of the CalFish.org website.

Consistent with Section 31220(b)(6), the projects will help reestablish natural hydraulic and geomorphic connectivity at road-stream crossings, help improve fish passage throughout coastal watersheds, and help decrease the likelihood of unnatural erosion or sedimentation caused by blockages or culvert failures, thereby protecting coastal watershed habitat from unnecessary degradation caused by infrastructure failure.

Under Section 31220(c), projects funded under Chapter 5.5 must also be consistent with the Integrated Watershed Management Program, local watershed management plans, and water quality control plans adopted by the State Water Resources Control Board and regional water quality control boards, if these documents are “available and relevant to the project.” Each basin plan adopted by the Water Board includes a provision for the protection of cold water fisheries as a beneficial use. The salmon and steelhead populations inhabiting California’s watersheds are considered “cold water fisheries.” Thus, any projects designed to improve and enhance salmonid populations within California’s watersheds are consistent with the Board’s adopted Basin Plans. As the grantee brings specific projects to the Conservancy for approval, Conservancy staff will review them and consult, consistent with Section 31220. Consistent with Section 31220(c), the grantee will include post-project monitoring to evaluate the success of implementation.

The proposed project is also undertaken pursuant to Chapter 6 (Sections 31251-31270) of Division 21 of the Public Resources Code, regarding coastal resource enhancement, as follows:

Under Section 31251, the Conservancy may award grants to local public agencies and non-profit organizations for the purpose of enhancement of coastal resources which, because of human-induced events, or incompatible land uses, have suffered loss of natural and scenic values. Consistent with this section, the proposed authorization provides funds to the County to enhance coastal fishery resources disturbed by incompatible land uses, such as inappropriate culvert installation.

Under §31251.2(a), “In order to enhance the natural or scenic character of coastal resources within the coastal zone, the Conservancy may undertake a project or award a grant...to enhance a watershed resource that is partly outside of the coastal zone....” Consistent with this section, the County requested Conservancy assistance with projects located within and outside the coastal zone. This assistance was sought in order to benefit salmon populations known to travel many miles upstream of the coastal zone boundary in order to fulfill their life history patterns. Indeed, salmon depend on unimpeded access to high quality habitat both within and outside of the coastal zone in order to survive. If salmon and other highly prized aquatic resources are to be maintained and restored to historic levels, funding must be provided to improve salmon habitat. This section also requires the approval of the California Department of Fish and Game. The Department is highly supportive of these projects, and a letter of support letter for this authorization from the Department is included in Exhibit 2.

Under Section 31252, all areas proposed for resource enhancement should be identified in a certified local coastal plan or program as requiring public action to resolve existing or potential resource problems. Consistent with this section, the Humboldt, Del Norte and Mendocino County Local Coastal Programs identify the need for public action to restore coastal streams (see “Consistency with Local Coastal Programs,” below).

Under Section 31253, “(the) Conservancy may provide up to the total of the cost of any coastal resource enhancement project...” and the amount of the Conservancy contribution shall be determined only after an assessment of funding generally available and other factors. The proposed contribution by the Conservancy was determined based on application of priority criteria, as discussed below, and after taking into account other available resources and the matching contributions to the project by other funding sources.

#### **CONSISTENCY WITH CONSERVANCY'S STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):**

Consistent with **Goal 6 Objective A** of the Conservancy’s Strategic Plan, the proposed project will contribute to the development of approximately 70 plans and projects that preserve and restore coastal watersheds.

Consistent with **Goal 6 Strategy 1** of the Conservancy’s Strategic Plan, the proposed project will leverage the results of the recently completed study of barriers to fish passage, through the implementation of projects to improve habitat for anadromous fish. The proposed authorization

will enable the Conservancy, in concert with the grantee, to increase available habitat for aquatic species, notably salmon, by preparing to remove instream barriers to their free migration. By employing the Conservancy's recently completed report, "An Inventory of Barriers to Fish Passage in California's Coastal Watersheds," as well as the expertise of the grantee, the Conservancy will ensure measurable increases in available habitat and, presumably, measurable increases in anadromous fish populations within and above the project areas. In order to ensure the success of this strategy, Conservancy staff will, in conjunction with the grantee, monitor the efficacy of the implemented projects and chronicle the degree of success at each site.

#### **CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:**

The proposed project is consistent with the Conservancy's Project Selection Criteria and Guidelines adopted January 24, 2001, in the following respects:

##### **Required Criteria**

1. **Promotion of the Conservancy's statutory programs and purposes:** See the "Consistency with Conservancy's Enabling Legislation" section above.
2. **Consistency with purposes of the funding source:** See the "Project Financing" section above.
3. **Support of the public:** Supporters of this project include Assemblymember Patty Berg, the Department of Fish and Game, National Marine Fisheries Service, and others. Letters of support are included in Exhibit 2.
4. **Location:** The potential project sites are located throughout the Five Counties area and are described in the project summary section and geographically depicted on Exhibit 1.
5. **Need:** The Five Counties planning area is especially rich in anadromous fish resources. However, existing barriers obstruct recovery within the full geographic range of species either listed or potentially listed under the federal and State endangered species acts. The removal of these prioritized barriers will substantially increase recovery efforts for these important fishery resources by providing anadromous salmonids access to spawning and rearing sites in upper portions of the watersheds.
6. **Greater-than-local interest:** The public trust value of California's salmon and steelhead populations is of great interest to all, and is a natural legacy too precious to lose. Moreover, the historic economic contributions from sport and commercial fishing can be recovered for the overall economic benefit of the State of California.

##### **Additional Criteria**

7. **Urgency:** Coho salmon are currently at six to 15% of their abundance during the 1940s. Given this decline, and in light of the State Recovery Strategy's primary objective of returning coho salmon to a level of sustained viability, while protecting their genetic integrity, enhancement projects with a high potential for recovering local populations of coho salmon are a high priority for the State.
8. **Leverage:** See the "Project Financing" section above.

9. **Innovation:** This cooperation to recover anadromous fish populations through the improvement of existing County infrastructure, such as road culverts, represents an important trend in local government towards the improvement of salmonid habitat on private, County and State property.
10. **Readiness:** The project applicant has demonstrated that it has the experience, expertise, local public support, and administrative capability necessary to commence and complete the project in a timely fashion.
11. **Realization of prior Conservancy goals:** The Conservancy's completion of the report "Assessment of Barriers to Fish Passage in California's Coastal Watersheds" signals the agency's focus on and commitment to the improvement of fish passage in coastal watersheds. Having identified numerous barriers to fish passage in this report, and having supported several fish passage improvement projects already, this proposal provides a convenient means of expanding the Conservancy's efforts in this area, and expediting the development of a greater number of projects in the near future.
12. **Cooperation:** The County, other funders, and regulatory agencies have all proven themselves hearty supporters of fish passage improvement efforts. The unprecedented level of cooperation on these types of projects has directly resulted in the implementation of successful projects that have provided increased habitat and increased populations of anadromous fish in our coastal watersheds.

#### **CONSISTENCY WITH LOCAL COASTAL PROGRAM POLICIES:**

The proposed authorization will affect sites from at least four northern California counties, three of which have certified Local Coastal Programs ("LCP"), and one of which is outside of the coastal zone. Consistency with the three certified LCPs is found as follows:

##### Del Norte County

Work sites will be located within and outside of the coastal zone. However, the aquatic resources and habitat quality of stream channels within and outside of the coastal zone boundaries are inextricably linked. Barriers to fish passage affect coastal resources regardless of barrier location within the watershed. The anadromous fish populations that spend part of their life history within the coastal zone reside for extended periods outside of the coastal zone, and therefore depend upon free passage within a watershed throughout their life history. Thus, the authorization is consistent with the relevant portions of the Del Norte County Local Coastal Program (LCP), which was certified by the Coastal Commission on October 12, 1983.

It is due to the diversity in life history patterns of anadromous fish species that the County of Del Norte LCP acknowledges the importance of coastal streams and riparian vegetation systems as Sensitive Coastal Habitat, necessary to both the aquatic life and the quality of water courses. Under the County of Del Norte Local Coastal Program, Chapter VI, the following provisions are made:

"The County shall maintain all existing species of fish, wildlife, and vegetation for their economic, intrinsic and ecological values as well as providing adequate protection of rare and

endangered species.” (Appx., p. 55)

“The County should establish riparian corridors along local streams, creeks, and sloughs to maintain their aesthetic appeal, wildlife habitat, control of erosion....” (Appx., p. 56)

“The County encourages programs (e.g., fish hatcheries, habitat rehabilitation) designed to improve the quality of coastal fisheries and other marine resources.” (Appx., p. 57)

“All surface and subsurface waters shall be maintained at the highest level of quality to insure the safety of public health and the biological productivity of coastal waters.” (Appx., p. 58)

Therefore, this recommendation’s goal of improving anadromous fish habitat by removing barriers to fish passage, and providing access to historic habitat, thereby maintaining and enhancing the aquatic resources of the County, is consistent with the LCP.

#### Humboldt County

Work sites will be located within and outside of the coastal zone. However, the aquatic resources and habitat quality of stream channels within and outside of the coastal zone boundaries are inextricably linked. Barriers to fish passage affect coastal resources regardless of barrier location within the watershed. The anadromous fish populations that spend part of their life history within the coastal zone reside for extended periods outside of the coastal zone, and therefore depend upon free passage within a watershed throughout their life history. Thus, the authorization is consistent with the relevant portions of the Humboldt Bay Local Coastal Program (LCP), which was certified by the Coastal Commission on October 14, 1982, and which states:

“The biological productivity and the quality of coastal waters, (and) streams...appropriate to maintain optimum populations of marine organisms...shall be maintained, and, where feasible, restored through...minimizing alteration of natural streams.” (LCP, 3-55).

“New development within stream channels shall be permitted when there is no less environmentally damaging feasible alternative, where the best feasible mitigation measures have been provided to minimize environmental effects, and shall be limited to...wetlands, fishery, and wildlife enhancement and restoration projects....” (LCP, 3-56).

Because the proposed authorization will prepare for projects designed to re-create riparian habitat where it has been lost; restore the natural meander and in stream habitat of the project area; improve sediment flushing by restoring natural geomorphologic processes; and open up previously unavailable habitat; therefore the proposed authorization is entirely consistent with the Local Coastal Program Policy stated above.

#### Mendocino County

Work sites will likely be located both within and outside of the coastal zone. However, the aquatic resources and habitat quality of stream channels within and outside of the coastal zone boundaries are inextricably linked. Fish passage barriers affect coastal resources regardless of their location within the watershed. The anadromous fish populations that spend part of their life history within the coastal zone reside for extended periods outside of the coastal zone, and

therefore depend upon free passage within a watershed throughout their life history. Thus, this authorization is consistent with the relevant portions of the Coastal Element of the Mendocino County Land Use Plan (LUP)—part of Mendocino County’s Local Coastal Program (LCP), which was certified by the Coastal Commission on September 10, 1992, and which states:

“Channelization, dams, or other substantial alterations of rivers and streams shall be limited to...necessary water supply projects....Where any of these uses are permitted the best feasible mitigation measures shall be incorporated into the development.” (LUP Policy No. 3-1-9) The proposed authorization seeks to reverse the ecological consequences of ill-conceived construction projects completed prior to the adoption of the natural resource protection policies enumerated in the LUP generally, and in this policy specifically. By planning for the provision of fish passage facilities at dams and other barriers to fish passage, this authorization will begin to remove existing limitations to the historic range of commercially and socially important anadromous fish species, as well as other aquatic organisms, and set new standards for future compliance with this Policy. The proposed authorization is therefore consistent with, and will enhance the objectives of this policy.

“....No structure or development...which could degrade the riparian area or diminish its value as a natural resource shall be permitted in the Riparian Corridor except for...channelizations, dams or other substantial alterations of rivers and streams as permitted in Policy 3.1-9; pipelines utility lines and road crossings, when no less environmentally damaging alternative route is feasible...” (LUP Policy No. 3-1-10). The proposed authorization seeks to reverse the ecological consequences of ill-conceived construction projects completed prior to the adoption of the natural resource protection policies enumerated in the LUP generally, and in this policy specifically. By planning for the replacement of outdated road crossings and other barriers to fish passage with new fish passage facilities, this authorization will begin to remove existing limitations to the historic range of commercially and socially important anadromous fish species, as well as other aquatic organisms, and set new standards for future compliance with this Policy. The proposed authorization is therefore consistent with, and will enhance the objectives of this policy.

“The Mendocino Coast is an area containing many types of marine resources of statewide significance. Marine resources shall be maintained, enhanced, and, where feasible, restored; areas and species of special biologic or economic significance shall be given special protection; and the biologic productivity of coastal waters shall be sustained.” (LUP Policy No. 3.1-25) Whether within or outside of the coastal zone, the proposed authorization fits the general criteria and mandate of this policy by: 1) restoring marine resources such as anadromous fish which depend upon access to available habitat in coastal streams; 2) protecting areas of the Mendocino Coast and species there of special biologic or economic significance such as steelhead and coho salmon, both of which are species of both biologic and economic significance, and; c) sustaining the biologic productivity of coastal waters by enabling anadromous fish to return to their spawning grounds. The proposed authorization is thus consistent with and implements Policy No. 3.1-25.

**COMPLIANCE WITH CEQA:**

The proposed authorization does not have the potential to result in any physical changes to the environment and is therefore not a “project” subject to the California Environmental Quality Act (CEQA), as defined in 14 California Code of Regulations Section 15378. However, any projects later proposed for Conservancy authorization of funding for actual implementation will be evaluated as required by CEQA.